

CHAPTER III

RESEARCH METHOD

This Chapter the writer discussed about research type, research design, population and sample, instrument of the study, instrument try out, location of study, source of data, data collecting procedures, and data analysis procedure.

A. Research Type

In this study, the writer used a quantitative approach because this approach is qualified to collect statistical data to answer the problems of this study. Then, the writer measured the students' score by the tests; pre-test and post-test, According to Creswell:

“a quantitative study, consistent with the quantitative paradigm, is an inquiry into a social or human problems based on testing a theory composed of variables, measure with numbers, and analyzed with statistical procedures in order to determine whether predictive generalizations of the theory hold true”

B. Research Design

The design of this study was experimental design because the writer measure the effect of jazz chants on students' vocabulary mastery.

In this study, the writer used quasi-experimental design. Because there are many situations in educational research in which it was not possible to conduct a true experiment.³⁸ Neither full control over the scheduling of experimental conditions nor the ability to randomize can be always realized. Therefore, the writer this design because of permitting the research to reach

³⁸ Donald Ary, Lucy Cheser Jacobs, and Asghar Razavieh, *Introduction to Research in Education, third Edition*, 1985 p.282

reasonable conclusions even though full control is not possible.³⁹ And to avoid the selection bias that can seriously threaten the internal and external validity such as maturation, instrumentation, and pretesting, the writer occupied the pretest and posttest at the same period of time. It means, the writer held the pretest of the experiment and control group at the same time and after giving all the treatment of the experiment group and teaching the control group, immediately the writer held the post test.

The study was non-randomized control group, pretest-posttest design. Is one of the most widely used quasi-experimental designs in educational research.⁴⁰ There are two groups in this model, control group and experiment group. Both of groups are given pre-test to measure the score of the students before the treatment has given. They are symbolized by Y1 and Y1. It meant, the control group has not given the treatment but another conventional strategy as usual and post-test has given for both of groups to measure the difference score of students between control and experiment group after the treatment are symbolized by Y2 and Y2. Moreover, the design can be drawn in the following scheme below:

Table 3.1
The Scheme of Quasi Experimental Design
Nonrandomized control group, pretest-posttest design

Subject	Pre-test	Treatment	Post-test
E	Y1	X	Y1
C	Y2	-	Y2

³⁹ Donald Ary, Lucy Cheser Jacobs, Chris Sorensen, *Introduction to Research in Education, eight Edition*, Belmont: Wadsworth, 2010, p. 317

⁴⁰ *Ibid.*, p. 316

Where :

E : Experiment group

C : Control group

X : Treatment

Y1 : Pre-test

Y2 : Post-test

In this experiment, the writer taught the students with the same material. Therefore, The use Jazz chants Model is applied on experiment group only, and for the control group the writer will apply conventional strategy, the teacher usually gives words list from the English textbook used and asks the students to memorize those words in the next meeting. Meanwhile, the writer applied that strategy to teach the control group and not given the treatment.

C. Population and Sample

According to Ary “ *population is all members of well defined class of event or objects.*”⁴¹ It means all the members of the object observation is the population in which the large group about the generalization is made. Population is all of individuals from whom the data collected. In this study the population is all of the fifth grade students at MIS of Islamiyah Palangka Raya. Meanwhile, the small group that is observed is called a sample. in addition, the writer used cluster sampling because the unit chosen is not an individual but a group of individuals who are naturally together or grouped by

⁴¹Ibid, p. 133

the school.⁴² These individuals constitute a cluster that is alike with respect to characteristics relevant to the variable of the study. The classes are:

Table 3.2
The Number of the fifth grade students of SDN 7 Pahandut Palangka Raya

No	Classes	Number of Students
1	V A	30
2	V B	32
Total Number		62

In this study, V-A class is an experimental group which taught using the use jazz chant and V-B is a control group which teach using the conventional strategy. Meanwhile the try out is conducted at Islamic elementary school of Nurul Ihsan Palangka Raya the fifth grade students of Islamic elementary school of Nurul Ihksan Palangka Raya at Murjani Street. The writer chose that school because same level of the subject.

D. Instrumentation of Test

The data were very important in the study; it helped the writer to find the aims of study, they were to measure the effect of jazz chants toward students' vocabulary mastery at the fifth grade students of SDN 7 Pahandut Palangka Raya.

This part explained the test, as a research instrument, used to collect the data, it covers test type, test validity and reliability, normality and homogeneity.

The writer tried out the test instrument before applying to the real sample in the study. The test given to another class in the same level, but

⁴² Ibid, p. 138.

different school and teacher; they were V class of SD Islam Nurul Ihsan Palangka Raya consist of 17 students. Then, the writer gained the information about the instrument quality that consist of instrumen validity, insrumentreability, index of difficulty and test of normality. The procedure of try out were:

1. Test type

In this study, the writer used multiple-choice to check the students' vocabulary mastery. As Madsen's suggestion that a good vocabulary test type for students who can read in the foreign language is multiple-choice completion because it makes the students depend on the context clues and sentences meaning.⁴³ The writer was given the pre-test and post-test. The writer was given the pre-test without giving treatment before. Post-test were given after the experiment group got the treatment. The major of the data in this study were the data of the students' score taken from pre-test and pos-test.

2. Test validity

The validity of a test is the extent to which it measure what it is supposed to measure and nothing else.⁴⁴ Simply, it can be said that a test will be valid, if it measures accurately what is intended to measure. Therefore, related to study, the test is aim to measure the student's vocabulary mastery. Validity have three distinct aspects, all of which are

⁴³ Harold S. Madsen, *technique in testing*, New York: Oxford University Press, 1983, p.16

important. They are: content validity, face validity, and construct validity.⁴⁵

a. Content Validity

A test is said to have content validity if its content constitutes a representative sample.⁴⁶ It refers to the extent to which the instrument represents the content of interest. In the other words, it is concerned with the questions how well does the content of the instrument represent the entire universe of content which might be measured.⁴⁷ Specifically, in this study, the test must be make up of items testing knowledge or control of vocabulary. It was provide the test constructor with the basis for making the principle selection of elements for inclusion in the test. The test items in this research was to measure the students' vocabulary mastery and was made based on the English teaching learning curriculum that was applied in SDN 7 Pahandut Palangka Raya and from English Teacher's book.

b. Face Validity

A test is said to have content validity if its content constitutes a representative sample.⁴⁸ It refers to whether or not the content of the manifest variables. In this study, the test must be made up of items testing knowledge or control of vocabulary. It would provide the test

⁴⁵ Arthur hughes, testing for language learners, Great Britain: Cambridge University press,1989, p. 22.

⁴⁶ Ibid., p.22

⁴⁷ Donald Ary, *Introduction to research in Education*; third edition,.... 1985, p 214

⁴⁸ Arthur hughes, testing for language learnersp. 22.

constructor with the basis for making the principle selection of elements for inclusion in the test. .

c. Construct Validity

This type of validity assumes the existence of certain learning theories or construct underlying the acquisition of abilities and skills.⁴⁹ It is concerned with the extent to which a test measure a specific trait or construct. Specifically, the construct validity measure vocabulary mastery.⁵⁰ It is type of validity that is essential for tests that are used to individuals on certain abilities. Then, to measure the validity of the instrument, the writer will use the formulation product moment by Pearson as follow:⁵¹

$$r = \frac{n \cdot \sum XY - (\sum X) \cdot (\sum Y)}{\sqrt{(n \cdot \sum X^2 - (\sum X)^2) \cdot (n \cdot \sum Y^2 - (\sum Y)^2)}}$$

where:

r : Pearson r

$\sum x$: sum of score in X distribution

$\sum y$: sum of score in Y distribution

$\sum X^2$: sum of squared score in X distribution

$\sum Y^2$: sum of squared score in Y distribution

$\sum XY$: sum of product of paired X and Y score

N : Number of paired X and Y score

⁴⁹ J. B. Heaton, *language testing*.....p. 154

⁵⁰ Donald Ary, *Introduction to research in Education*; third edition,.... 1985, p 218

⁵¹ Riduan, *Metode dan teknik menyusun tesis*, Bandung: Alfabeta, 2010, p. 116

The criteria of interpretation for the validity:⁵²

0.800 – 1.000 = Very High Validity

0.600 – 0.799 = High Validity

0.400 – 0.599 = Fair Validity

0.200 – 0.399 = Poor Validity

0.0 – 0.199 = Very Poor Validity

From the computation using Excel, it could be found that there were 6 invalid items or about 15% and 34 valid items or about 85% (see details in apendix 6)

3. Test Reliability

Reliability is necessary characteristic of any good test: for it to be valid at all, a test must first be reliable as a measuring instrument.⁵³ The reliability of the whole test was estimate by using KR-21. As the following the formula:⁵⁴

$$r_{11} = \frac{K}{K-1} \times \left(1 - \frac{M(k-M)}{K.V_t} \right)$$

Where :

R_{11} = instrument reliability

K = the total number of test items

M = mean of score

V_t = the total variants

⁵² *Ibid*, p. 116

⁵³ J.B Heaton *Language testing...*,p. 155.

⁵⁴ Riduan,*metode dan teknik menyusun.....*p. 125

$r_{11} > r_{table} = \text{Reliable}$ $r_{11} < r_{table} = \text{Not Reliable}$

The calculation of reliability See Appendix 11.

4. Normality

Normality is used for estimating parametric or non parametric test would be used to analyze the data obtained. Normality is a test normal to whether or not the distribution of research data. Therefore, the writer used SPSS 20 program to measure the normality of the data. See at chapter IV.

5. Homogeneity

Homogeneity test aims to test the equality (homogeneity) some samples.⁵⁵ The writer used SPSS 20 program to measure the homogeneity of the data. See at Chapter IV

6. Index of Difficulty

According to Heaton the index of difficulty or facility value is the fraction or percentages of the students who answered the item correctly.⁵⁶ It is used to show how easy or difficult the particular item proved in the test. Furthermore, this analysis provides insight into the instruction as well

⁵⁵ Ibid, p. 136

⁵⁶ J.B Heaton, *Language testing*, 1974, p. 172.

as evaluating the test item themselves. It is calculated by using the formula:⁵⁷

$$F.V = \frac{R}{N}$$

Where:

F.V = facility value

R = represent the number of correct answer

N = the number of students taking the test

To interpret, Thondike and Elizabeth in sodijono give the rule of interpretation as following:⁵⁸

F.V < 0, 30: difficult

0, 30-0, 70 : fair

F.V > 0, 70 : easy

The calculation of the index difficulty see Appendix 8.

E. Instument Of Try Out

In this study, the writer used multiple-choice to check the students' vocabulary mastery. As Madsen's suggestion that a good vocabulary test type for students who can read in the foreign language is multiple-choice

⁵⁷ *Ibid.*, p. 172

⁵⁸ Anas sidijono, Pengantar evaluasi pendidikan, Jakarta :PT. Rajagrafindo persada, 2007, p.320.

completion because it makes the students depend on the context clues and sentences meaning.⁵⁹ The writer use multiple-choice that consists of 40 items. All the questions will adapted from the book used at SDN 7 Pahandut Palangka Raya where the study would be conduct.

They were 10 items about verbs, 15 items about professions, 10 items about antonym, and the last 5 items about synonym.(see details in appendix 5)

F. Location of Study

This study would be conducted at SDN 7 PahandutPalangka Raya, Jl. Murjani of Pahandut district of Palangka Raya.

G. Source of Data

Source of data is the subject where the data found. In this study, the source of data consists of the students' English score which would be gotten from the test instrument.

H. Data Collecting procedure

The aim of this study was to measure the effect of using jazz chants model on vocabulary mastery by experimental group of students. To collect the data, the writer divided the subject into two groups; the two groups were experiment group and control group. Both of groups were given pre-test, then teach the experiment group by using jazz chants model and control group without jazz chant model, and gave post-test to the experiment and control group.

⁵⁹ Harold S. Madsen, *technique in testing*, New York: Oxford University Press, 1983, p.16

The steps of the data collection procedure as follows:

1. The writer divided into two groups (control group and experiment group)
2. The pre-test was given to both classes that would be assigned as the sample of the study. The pre-test was conducted on february 24, 2014 for Experiment group and Control group.
3. The writer gave treatment to the experiment group. Teaching english using jazz chants model and control group without jazz chants model (for the steps of treatment see table 3.3)
4. The writer gave post-test to both classes after giving the treatment. It conducted on April 21, 2014 for the experimental group and control group.
5. The writer gave score to the data from the experiment group and the control group.
6. The writer analyzed the data using manual calculation and also SPSS 20 program.
7. The writer discussed and concluded the data.

Table 3.3 Teaching Procedure for Experiment and Control Group

Teaching Procedures for Experiment Group	Teaching Procedures for Control Group
a. First Activities <ol style="list-style-type: none"> 1. The teacher greets the students. 2. The teacher opens the lesson 3. The teacher prepares the condition of class. 4. The teacher introduces her self. 5. The teacher checks the students' present list. 	a. First Activities <ol style="list-style-type: none"> 1. The teacher greets the students. 2. The teacher opens the lesson 3. The teacher prepares the condition of class. 4. The teacher introduces her self. 5. The teacher checks the students' present list.

<p>b. Core Activities</p> <p>➤ The First meeting</p> <ol style="list-style-type: none"> 1. The teacher introduces the material will discuss 2. The teacher asks the students about the topic 3. The teacher explains the material. 4. The teacher puts the pictures of members of the house on the blackboard. 5. The teacher read the word on the pictures. As like : FLOOR,WINDOW, DOOR, ROOF, WALL. 6. The teacher make some of sentences or conversation by using words on the pictures. 7. The teacher reads the conversation by using chats technique. 8. The teacher ask the students to replay what she said before what their action like the teacher do. 9. The teacher divide students into groups. They can take short parts of the chant and practise them first and then the whole thing. 10. Students sing the song and for each member of the house they make a small window in the air with their fingers and with the last line <i>I have the window</i> they make a very big window. <p>➤ The Second Meeting</p> <ol style="list-style-type: none"> 1. The teacher ask students listen to the jazz chants and follow along while reading it. Student can't speak during this part. 2. After that the teacher ask students do line by line choral reading of the jazz chant. She provides a model and ask students repeat after her while the students are reading. At this stage the teacher may stop at any point to correct 	<p>b. Core Activities</p> <p>➤ The First Meeting</p> <ol style="list-style-type: none"> 1. The teacher introduces the material will discuss 2. The teacher asks the students about the topic 3. The teacher explains the material. 4. The teacher presents new vocabulary about "HOUSE" : floor, wall, window, door, ceiling, roof, staircase, act. 5. The teacher give some conversation about asking and giving agreement. 6. The teacher ask students to make conversation about asking and giving agreement 7. The teacher ask students to practice it in front of class <p>➤ The Second Meeting</p> <ol style="list-style-type: none"> 1. Then the teacher explains the third plural by writing two sentences, and the students have to find the difference. 2. The teacher ask student to make a conversation about their routines or activity. 3. The teacher divides the class into two groups, and one group asks questions and other group responds to the questions. 4. The teacher make groups of two students, and they have to work by themselves alternating the different part. Then they have to perform them in front of the class. 5. After that the students have to describe their daily routines to their partners. <p>➤ The Third Meeting</p> <ol style="list-style-type: none"> 1. The teacher reads another time and the students have to repeat after her. While the students repeat, the teacher points to each word they read. 2. The teacher ask student to make a
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<p>pronunciation or intonation patterns.</p> <ol style="list-style-type: none"> 3. The teacher divides the class into two groups, and one group asks questions and other group responds to the questions. 4. The teacher make groups of two students, and they have to work by themselves alternating the different part. Then they have to perform them in front of the class. 5. After that the students have to describe their daily routines to their partners. <p>➤ The Third Meeting</p> <ol style="list-style-type: none"> 1. The teacher repeats the necessary times until the students acquire the new vocabulary. 2. The teacher writes the following chant on the board to provide the students with more practice. 3. The teacher reads another time using jazz chant model and the students have to repeat after her. While the students repeat, the teacher points to each word they read. 4. The teacher lets the students read in one voice by pointing to each word as they read the chant. 5. The teacher divides the class into two groups, and one group asks questions and other group responds to the questions. 6. The teacher make groups of two students, and they have to work by themselves alternating the different part. Then they have to perform them in front of the class. <p>➤ The Fourth Meeting</p> <ol style="list-style-type: none"> 1. The teacher explain about preposition to the students 2. The teacher give example by using tehcnique of chant and gives Students the flash cards. 3. The teacher says the chant again 	<p>text about their activity</p> <ol style="list-style-type: none"> 3. The teacher divides the class into two groups, and one group asks questions and other group responds to the questions. 4. The teacher make groups of two students, and they have to work by themselves alternating the different part. Then they have to perform them in front of the class. <p>➤ The Fourth Meeting</p> <ol style="list-style-type: none"> 1. The teacher explain about preposition to the students 2. The teacher give example gives Students the flash cards. 3. The teacher ask students to write some sentence about preposition of place and practice it in front of their friends. <p>➤ The Fifth Meeting</p> <ol style="list-style-type: none"> 1. The teacher explain about future tense to the students 2. Then the teacher explains the third plural by writing two sentences, and the students have to find the difference. 3. The teacher divides the class into two groups, and one group asks questions and other group responds to the questions. 4. The teacher make groups of two students, and they have to work by themselves alternating the different part. Then they have to perform them in front of the class. <p>➤ The Sixth Meeting</p> <ol style="list-style-type: none"> 1. The teacher explain about be going to the students 2. The teacher give example of text by using be going to 3. The teacher ask students to write some sentence by using be going to and practice it in front of their friends. <p>➤ Closing Activities</p>
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<p>and then writes it on the board. While Teacher says the chant Students go over the vocabulary and show the different clothes on the flash cards (in pairs or in groups, depends on how many flash cards there are in the class room).</p> <ol style="list-style-type: none"> 4. The students try to say the chant together, clapping or stamping the rhythm. 5. The teacher ask students to write some sentence about preposition of place and practice it in front of their friends. 6. After Students master the chant quite well they get into two groups and act the chant out, one group being the asking person and the other group the answering person. <p>➤ The Fifth Meeting</p> <ol style="list-style-type: none"> 1. The teacher explain about future tense to the students 2. Then the teacher explains the third plural by writing two sentences, and the students have to find the difference. 3. The teacher ask students listen to the jazz chants and follow along while reading it. Student can't speak during this part. 4. The teacher provides a model and ask students repeat after her while the students are reading. At this stage the teacher may stop at any point to correct pronunciation or intonation patterns. 5. The teacher divides the class into two groups, and one group asks questions and other group responds to the questions. 6. The teacher make groups of two students, and they have to work by themselves alternating the different part. Then they have to perform them in front of the class. <p>➤ The Sixth Meeting</p>	<ol style="list-style-type: none"> 1. The teacher gives the conclusion of the material 2. The teacher gives advice to the students 3. The teacher closes the lesson.
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<ol style="list-style-type: none"> 1. The teacher explain about be going to the students 2. The teacher give text of chant by using be going to 3. The teacher says the chant again and then writes it on the board. While Teacher says the chant Students go over the vocabulary and show the different clothes on the flash cards 4. The teacher gives Students the musical instruments and they play them very rhythmically along reciting the words. 5. The teacher ask students to write some sentence by using be going to and practice it in front of their friends. 6. After Students master the chant quite well they get into two groups and act the chant out, one group being the asking person and the other group the answering person. <p>c. Closing Activities</p> <ol style="list-style-type: none"> 1. The teacher gives the conclusion of the material 2. The teacher gives advice to the students 3. The teacher closes the lesson. 	
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I. Data Analysis Procedure

The writer analyzed the data by applying some procedure in the following:

1. Giving the tests to the students of the Eighth Grade students at SDN 7 Pahandut Palangka Raya.
2. Collecting the data of the students' tests result.
3. Giving score to the students' test result by using the formula:

$$\text{Score} : \frac{B}{N} \times 100\%$$

B: frequency of the correct answers

N: number of test item

4. Tabulating the students' score into distribution of frequency in the table, then find out the mean of students' score, standard deviation, and standard error of variable X1 (Experimental group) and X2 (Control group).
5. Calculating the data by using t-test to test the hypothesis of the study, whether the use jazz chants model Gave effect to the students' score or not . To examine the hypothesis, the writer used *t-test*. Test "t" or "t"
 Test is statistical test which is used to examine the truth or falseness of null hypotheses states that between two of Sample Mean taken randomly from the same population, there is no significant different.⁶⁰ "t test" is used to measure whether jazz chants model give effect to students' english score using the formula as follows:⁶¹

$$t_0 = \frac{M_1 - M_2}{SE_{m_1 - m_2}}$$

Note:

$M_1 - M_2$: The difference of two means

$SE_{m_1 - m_2}$: The standard error of the
 difference between two means

⁶⁰ Anas Sudijono, *Pengantar Statistik Pendidikan*, Jakarta : RajaGrafindoPersada, 1987, p.278.

⁶¹ Ibid, p. 284.

To know the hypothesis is accepted or rejected using the criterion:

If t-test (the value) $\geq t_{table}$, it means H_a is accepted and H_o is rejected.

If t-test (the value) $< t_{table}$, it means H_a is rejected and H_o is accepted.

6. Interpreting the result of t-test. Previously, the writer counted the degrees of freedom (df) with the formula: ⁶²

$$df = (N_1 + N_2 - 2)$$

Note : df : degrees of freedom

N_1 : Number of subject group 1

N_2 : Number of subject group 2

2 : Number of variables

After that, the value of t_{test} was consulted on the t_{table} at the level of significance 1 % and 5 %. In this research, the writer used the level of significance at 5 %. If the result or t-test is higher than t_{table} , it means H_a is accepted.

7. The writer made the conclusion of data analysis obtained.
8. In addition, the writer used SPSS 20 program to compare the data.
9. Discussing and concluding the result of data analysis.

⁶² Ibid, p. 285.